

USER'S MANUAL

Version : 051223

Model 30450712

MPEG-4 Hi-Resolution Real-time Triplex DVR

8 Channels

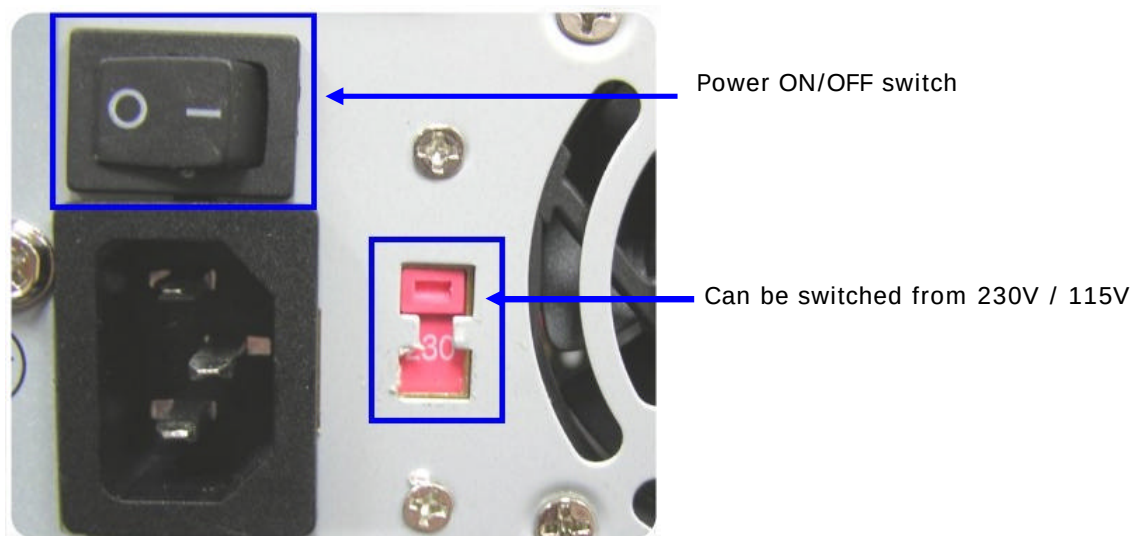
Table Of Contents

Important Notice	2
Operation precautions	3
Chapter 1 Product Features and Specifications.....	4
1.1 Technical Specifications.....	4
1.2 Product Features.....	5
Chapter 2 Installation.....	7
2.1 Hard Disk Installation	7
2.2 Front Panel Introduction.....	8
2.3 Remote Controller	9
2.4 Back Panel Introduction	10
Chapter 3 System Operation	12
3.1 Turn on/off the recorder	12
3.2 Recording operation.....	12
3.3 Alarm connection operation.....	13
3.4 Pan-Tilt-Zoom control operation.....	13
3.5 Network connection operation	13
Chapter 4 Front Panel And Remote Controller Operation.....	14
4.1 Operation Menu Introduction.....	14
4.2 Menu Operation	19
4.3 Main Menu Operation	22
Chapter 5 Operation Over Network	30
5.1 Setting on the client end	30
5.2 Login and Logout	30
5.3 Operation of the right key menu	31
5.4 Operation of the Records Search.....	33
5.5 Operation of the Config	35
5.6 Operation of the Assistant	39
Chapter 6 Serial port Operation	42
6.1 System setting of the Mini Terminal.....	42
6.2 Serial port upgrading operation	42
Chapter 7 Frequent Questions and Answers	43
Appendix	45
A. Operation of DVR with Speed Dome.....	45

Important Notice

1. Power supply

This DVR uses a 110V/230V AC switching type power supply input, please check carefully the voltage switch is properly set to fit your power source before you power ON this DVR.



2. Hard Disk

This DVR will only start after HDD is properly installed.
Please install at least one HDD (Maxtor is the only recommended).
HDD capacity can be 80GB up to 300GB.

3. CD-RW

A SONY CD-RW model 230A (IDE type) is recommended for the D1 DVR, or
A BenQ model 5232WI (USB type) is recommended for the D1 DVR.
For DVR CIF resolution models, a SONY DVD-RW model 710A is also supported.

4. Operating this DVR

Press ENTER key or click USB mouse once, for entering password.
The default password is 888888, for initially entering this DVR.

DVR :

- # 3045076 – 4CH (2CIF – 640 x 240)
- # 3045077 – 8CH (2CIF – 640 x 240)
- # 3045078 – 16CH (CIF – 320 x 240)

D1 resolution DVR

- # 30450711 – 4CH
- # 30450712 – 8CH

Operation precautions

All the safety and operating instructions should be read before the appliance is operated. The improper operation may cause irreparable damage to the appliance.

1 Installation condition

- 1.1 Put away from extreme hot places and humid places
- 1.2 Avoid direct sunlight
- 1.3 Be horizontally installed
- 1.4 Avoid violent vibrating, lift and place gently
- 1.5 Do not place other devices upon
- 1.6 Put in well ventilation places, not block the radiator fan in the back of the recorder

2 Installation and operation precautions

- 2.1 Please check the main power switch and voltage of power supply to avoid voltage mismatch. Attach the power cable to the unit and connect it to your local mains supply, then open the power.
- 2.2 At the first use, assure the installation of hard disk and the master-slave jumper wire should be set. MAXTOR hard disk is strongly recommended.
- 2.3 Do not unplug the power connector before turn the power off correctly and switch the power on & off within short period.
- 2.4 Unauthorized repair or parts substitutions may result in fire, electric shock or other hazards.
- 2.5 Do not attempt to service this equipment by yourself. Refer all servicing to qualified service personnel.

3 Open cabinet and check inventory

Check the items supplied against the list below after open the case.

- 3.1 One power Cord x 1
- 3.2 Ethernet cable (positive cable) x 1
- 3.3 One serial port cable x 1
- 3.4 User manual x 1
- 3.5 CD-ROM for installation x 1
- 3.6 One 25-pin alarm converter x 1

Chapter 1 Product Features and Specifications

1.1 Technical Specifications

Parameter	30450712 – 8 Channel
Processor	High performance embedded microprocessor
Operation system	Embedded Linux Operation System
Interface	GUI, Mouse support, menu color changeable
Video input	8 composite video input (NTSC/PAL) BNC, (10Vp-p. 75Ω)
Video output	1 PAL/NTSC composite video output, BNC(10Vp-p. 75Ω), 1 VGA monitor output
Audio input	8 Channel 1200~2800mv30KΩ (BNC)
Audio Output	1 Channel 3500mv 3KΩ (BNC)
Screen division	1, 4, 9 display
Video format	NTSC (525 line, 60f/s), PAL (625 line, 50f/s)
System resource	Real-time recording, one channel playback and network operation simultaneous (Triplex)
Image resolution	NTSC/PAL Real-time monitor D1 720x480/704x576 NTSC/PAL Playback D1 704 x 480/704x576 NTSC/PAL Half-D1 360x480/352x576 NTSC/PAL DCIF 720x240 /704x288 NTSC/PAL CIF 360x240 / 352x288
Motion detection	Area setting 192 (16x12) areas setup for each channel; detection sense setting : Multiple levels detection sense
Video compression	MPEG-4 , H.264
Audio compression	PCM
Video recording speed	Real-time mode : NTSC – 1fps ~30fps for each channel adjustable PAL – 1fps ~ 25fps for each channel adjustable
Image quality	6 levels selectable
Hard disk	Inside equipped 4 IDE ports, able to install 8 HDDs inside
HDD space used	Audio : PCM 28.8Mbyte/Hour Video : 40 ~ 2000Mbyte/hour
Alarm input	4 channel voltage alarm input (+5V ~ +15VDC. Needed for the alarm input)
Alarm output	3 channel output (2 NO contact, 1 controllable + 12V output)
Alarm relay	30VDC 1A, 125VAC 0.5A-relay output
Network connection	RJ45 10M/100M Ethernet connection
Pan-Tilt control	RS-485, RS-232
Power supply	115V / 230V 47/63Hz
Power consume	40W (without HDD)
Working temperature	-10°C ~ + 55°C
Working humidity	10% ~ 90%
Barometric pressure	86kpa ~ 106kpa
Dimension	2U standard industrial case, 441mm(W) x 430mm(L) x 89mm(H)
Weight	Approx 11KG without HDD weight

Installation	Shelf installation , flat installation
--------------	--

1.2 Product Features

Real-time Monitor

- Video output port and VGA port, able to realize monitoring on the monitor or PC type monitor
- Single window / Four windows
- Multi window / Single window patrol sequentially on pre-determined intervals
- Real-time display bit stream and HDD space occupied per hour
- Display channel status such as recording motion detection, video loss, monitoring covered

Compression Method

- Multiple video compression mode : MPEG-4, H.264
- 4 Channel audio/video real-time compression, independent hardware compression for each channel, stable synchronization of sound and image

Storage

- 4 IDE port support up to 8 large capacity built-in HDDs
- Alternate HDD working method, Hard disks can be put into idle mode if not accessed for a period of time Greatly reduces the power consuming and heat emission, hard disks can be used for much longer time
- Choose overwrite or stop modes when hard drive is full
- Use special format to save recording keep the data from being juggled and ensure the secure storage

Back-up

- Support CD-RW drive to back up records onto CD through USB port
- USB port support multi-backup device include removable HDD, flash disk
- Download the file from DVR to local PC through network
- Preserve the file on HDD by setting the HDD read-only

Play and record

- Support multiplex operation : Real-time display/record in all channels, one channel play-back, remote operations search for downloading, simultaneously while recordings are in progress
- Multiple recording mode : manual, schedule, alarm, motion detection, alarm recording and motion detection recording are with pre-recording function
- Playback : PIP or multi-channel function realize real-time monitoring during playback, playback also available using

Network connection

- Fast search and playback for schedule recording and alarm recording
- Playback at adjustable speeds : X2 , forward, 15fps, 5fps slow play or view frame by frame, pause and revise
- Display the original event time/date during playback

Alarm relay

- 8 channel external alarm input, video lost alarm and motion detection alarm
- Multi channel alarm output switch realize quick alarm relay and on-spot light control
- Protection circuit for alarm input and output assure the intactness of the main device

Pan-Tilt-Zoom Control

- Support Pan-Tilt-Zoom (PTZ) Functions using RS485 communication protocol
- Able to integrate multiple decoding protocol so as to control various pan-tilt and speed dome

Communication connection port

- RS-485 (25pin port) connection realize alarm input and PTZ control
- RS-232 port support multiplex function – connecting a modem for the dial-up to the net , with keyboard for central control connect to the computer serial port for system upgrading and debugging or link to different matrix
- Standard Ethernet port for remote viewing and control

Network function

- Remote real-time monitor and operate
- Pan-Tilt-Zoom control
- Recording search and real-time playback (The image quality depends on the network condition), downloading records through network
- System setting modification and system software upgrading online
- Remote alarm processing and system log reviewing
- Talkback between administrator and the DVR
- Embedded TCP/IP protocol and RTOS (Real-Time Operating System) supports web server direct visit to realize all the function above
- Administration mode : support 3 levels user password protection, to prevent any unauthorized use of product

Chapter 2 Installation

2.1 Hard disk installation

please install HDD first refer to the below installation instructions. Up to eight 10G-infinite capacity hard disk can be installed internally. The installed HDD number can be decided according to the required image quality, recording time and HDD capacity.

2.1.1 Steps of HDD Installation



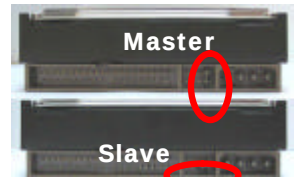
1. Dismantle the top cover, open the cabinet



2. Dismantle the HDD bracket



3. Install HD



4. Set the master-slave jumper on the same IDE port (refer to the clue on the back of the HDD)



5. Fix the HD bracket



6. Connect the IDE cable and plug in the power cable



7. Close the cover and install the screws

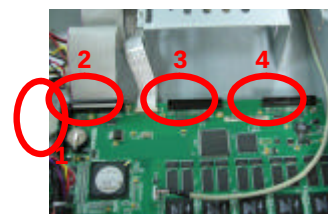
Structure of CD-RW bracket with 4HDD, and 8HDD without CD-RW



Fixture with CD-RW and less than 4 HDDs



Fixture without CD-RW but maximum 8 HDDs



4 IDE ports

Note : It is not necessary to dismantle the HD bracket if less than 4 HDDs are installed

2.1.2 Steps of CD-RW installation



1. Dismantle the CD-RW bracket inside the casing



2. Remove the baffle of CD driver from inside.

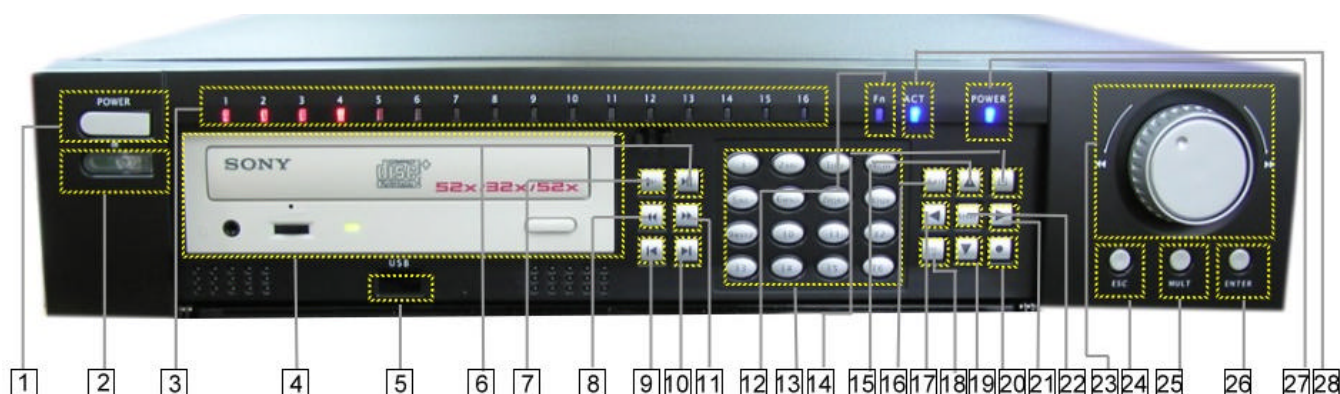


3. Fix the CD-RW on the CD-RW bracket



4. Reinstall the CD-RW bracket in the casing.

2.2 Front panel introduction



1. Power	2. Remote receiver	3. Record indicator light	4. CD-RW
5. USB port	6. Play / Pause	7. Slow play	8. Rewind
9. Play last section	10. Play next section	11. Forward	12. Function indicator light
13. Number key	14. Single window display	15. Up direction key	16. Exit
17. Left direction key	18. Function	19. Down direction key	20. Record
21. Right direction key	22. Enter	23. Outer Jog Shuttle	24. Exit
25. Multi-window display	26. Enter	27. Standby	28. Power indication light

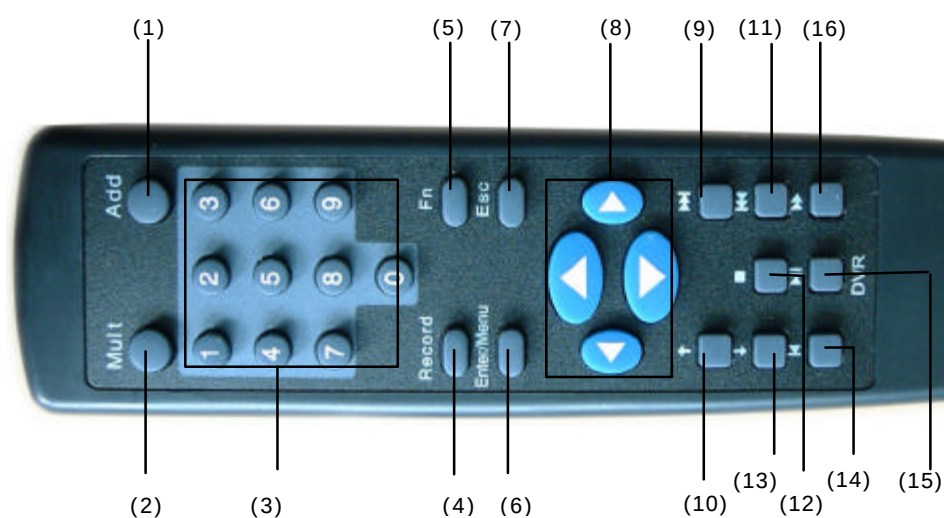
Key Functions

No.	Name	Sign	Function
1	Power switch	POWER	Power on/off (press for 3 sec. to turn off the DVR)
2	Remote receiver		To receive the remote signal
3	Record indicator light		The light turn on red means the certain channel is on recording
4	CD-RW		Backup records
5	USB port		To connect with the USB device
6	Play / Pause	▶ / II	Play/ Pause
7	Slow Play		3 levels of slow play speed adjustable (15fps ~ 5fps)
9	Play last section	I◀	Play the last recording file before the current file
10	Play next section		Play the next recording file after the current file
11	Forward	▶▶	Forward at 5 adjustable speed x 1 (normal)
12	Function indicator light		The light on during function assistant key in using
13	Number key		Manual password number input, window shift or number input
15,19	Up/Down direction key		Up and down on screen cursor control; change setup; change number, PTZ control
16,24	Exit		Come back to previous menu

			Escape or cancel
17, 21	Left/Right direction key		Left and Right on screen cursor control; shifting level 1 and level2 menus; Pan control
18	Function	Fn	Click to display the PTZ and the image menu under full screen mode.
			Shift the PTZ function menu in Pan-Tilt
			To enable cursor field selection with the arrow keys when set MD area
			To display the playback state bar during playback
			Choose/ channel the backup file when backup
20	Record		Start / stop recording , work with arrow keys or number keys
22	Enter	ENTER	Enter cursor selection
			Enter main menu
23	Outer Jog Shuttle		Equal to Left/Right direction key
			Clockwise realize forward and counter clockwise realize revise when playback
25	Multi-window display		The shift the screen between full and multi-window display
26	Enter		Confirm the menu operation
27	Standby		The light on during the DVR is in standby mode
28	Power indication light		Indication light

- Connect the mouse to the USB port at the back panel
- Function (take the right hander for example)
Click the left key and the menu pop up for choosing
Click the right key to enter the menu
Double-click the left key to save the settings and exit the menu
Click the right key to cancel the setting and exit the menu

2.3 Remote controller

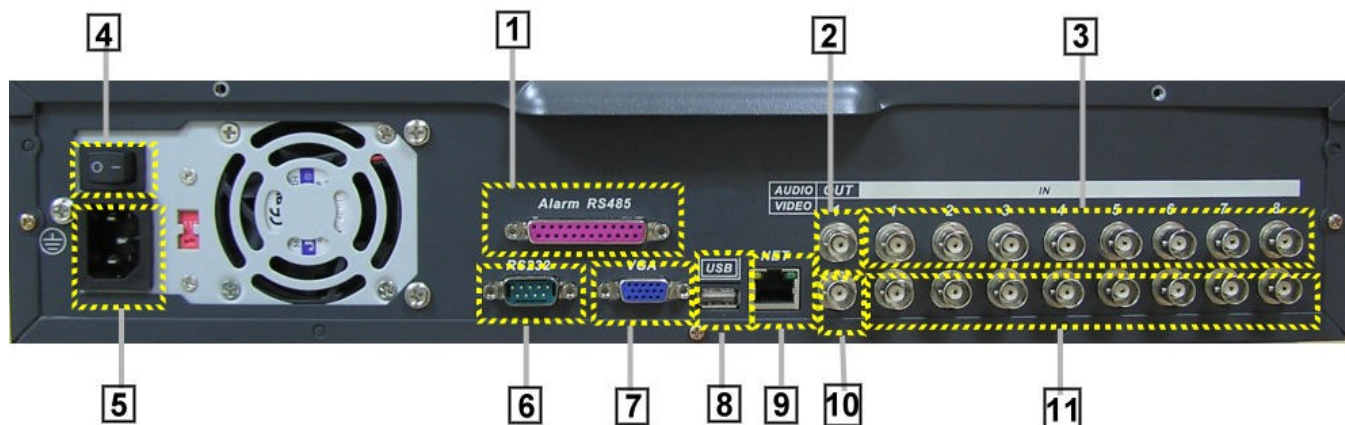


1. Remote address	2. Multi-window shifting	3. Number	4. Record
5. Function assistant	6. Enter/Menu	7. Cancel	8. Direction

MPEG-4 Hi-Resolution Digital Video Recorder

9. Jump forward	10. Play last section	11. Jump backwards	12. Pause
13. Play next section	14. Slow play	15. Play/ Pause	16. Fast play

2.4 Back panel introduction



Number	Function	Number	Function
1	Alarm – RS485 connection	2	Audio output
3	Audio input	4	Power switch
5	Power plug	6	RS232 connection
7	VGA connection	8	USB connection
9	NET network connection (RJ45)	10	Video output
11	Video input		

Network connection note : When connecting directly to the network card of the computer, please use CAT-5 crossover cable, when connecting to a LAN or Router use CAT-5e cable.

2.4.1 25 Pin alarm transfer box user illustration

● Application areas

Suitable for 3045076,3045077,30450711,30450712 series 4 channel, 8channel MPEG-4 DVR with 25 pin alarm input .

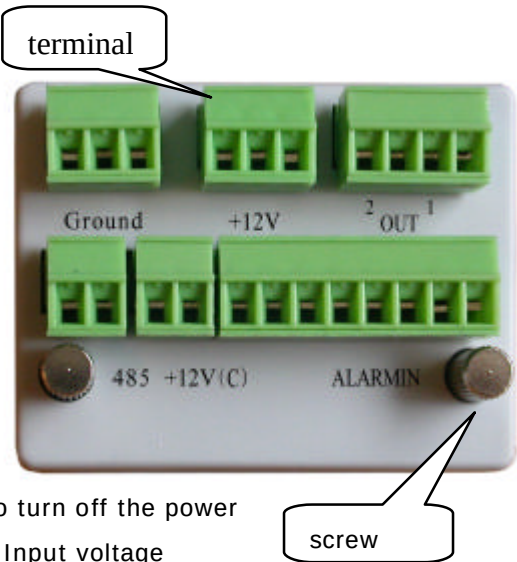
● Usage method

- A. Connect 25 pins of the transfer box directly with the 25 pins alarm input output connection of the DVR
- B. Fasten the transfer box on the back panel of DVR with two screws
- C. Pull out 6 connection terminals of the transfer box, corresponding connection marks can be clearly noticed
- D. Connect function line according to connection marks
 - ◆ Loosen the screws on the connection terminal (connection diagram 1)
 - ◆ Insert lines needed to corresponding terminals (connection diagram 2)
 - ◆ Fasten the screws on the terminals after insertion of the lines (connection diagram 3)

		
1. Connection diagram	2. Connection diagram	3. Connection diagram

● Remark

- E. “Ground” : ground line;
- F. “+12V” : Provide the power to alarm device with current less than 2 A
- G. “Out 1,2” is two alarm output switch normal open
- H. “485 A, B” is communication connection, used to connect such recorder control device such as control decoder
- I. “+12@ ” is control power output – the third alarm output , is used for standby power for smoke sensor alarm device. Dismiss of the alarm needs the device to turn off the power
- J. “ALARM 1... .8” is alarm input. High level voltage input. Input voltage is 5-12V (12V is recommended)



Chapter 3 System operation

Please confirm the HDD to be installed and the proper connection before turning on the DVR

For the correction method, refer to Chapter 2 – Installation

3.1 Turn on/off the recorder

3.1.1 Turn on the recorder

Plug in the power cable, switch on the power button at the back of the recorder, power indicator light on; DVR on; default 9 windows for the video output display. If the starting time is within the programmed recording time, the system will start recording function automatically. Corresponding channel indicator light on and system work in a normal manner.

Note: if the system stops during HDD boot detection, the HDD may not be installed right and please check the HDD connections (Ribbon and power connections).

3.1.2 Enter the setting menu

Press **Enter** the login screen appears on monitor before you enter the menu, you must input the password. There are two level of password – user password and administrator password

User password 666666

Administrator password 888888

With user password, you are also not allowed to enter system setting and admin setting.

Note: For the consideration of security, please change the setting in admin setting refer Chapter 4

3.1.3 Turn off the recorder ***please unplug the 220VAC power supply during HDD installation***

Press the POWER key on the front panel for 3 seconds to stop the current operations. Then switch off the power button at the back panel of the DVR to turn off the power.

3.1.4 Power off recovery

When the power is cut off abnormally, the recorder will recall its last state and continue where it left off. The state indicator light is the same as it was before the power off.

3.1.5 Change the battery of the DVR

Change the battery of the DVR, recommend to the same type of Lithium fastener batteries

Note: Please check the system time in time and generally change the battery each year to ensure the veracity time.

3.2 Recording operation

The default recording mode after the starting of DVR is 24 hours continuous recording. User can choose the suitable recording mode due to the necessity. Instructions for the difference or recording modes as follows:

- Schedule recording
 - Enter the menu, and set the timing period for the recording see details at Menu -> system setting -> schedule

- Manual recording
 - Press “ REC” button on the remote controller or “?” on the front panel (need input the administrator password)
 - Check the status of each channel in the recording menu; “■” channel are in recording. while “?” means the channel1 is not in recording
 - Select the channel to be recorded, please press the related number key (or use “▲ ▼ ” key/jog shuttle choosing) make the channel “■” on the screen then press **Enter** to start recording
 - Repeat above steps and make the channel “?” to stop the camera from recording
 - Press ESC to return.
- Alarm recording
 - Connect the alarm input according to the device connection and the instructions
 - Set the related item in the menu to start alarm recording See details at Menu -> Setting-> Alarm setting
- Motion detection recording
 - Record the channel only in need of motion detection first confirm whether this channel is on schedule recording if it is, please close the schedule recording
 - Set the related items in the menu to start motion detection recording see details at Menu -> System setting -> Motion detection.

3.3 Alarm connection operation

- Connect the alarm input according to the device connection and the instructions
- Connect the related alarm output according to the necessity (Example : light, beeper, etc..)
- Set the related item in the menu. See details at Menu -> System setting -> Alarm setting

3.4 Pan-Tilt-Zoom control operation

- Confirm the right connect of PTZ and the decoder and set the proper decoder address
- Confirm the right connection of decoder's A,B line and the 15-pin port's A,B line of DVR
- Set the related items in the menu. See details at Menu -> System setting -> Pan-Tilt control
- Shift the monitor image to the single window monitor of the channel in need of Pan-Tilt control
- continuously press “ Assistant” on the remote controller or “Fn” on the front panel to shift the items on the screen
- Use direction key to move and control the selections on the screen

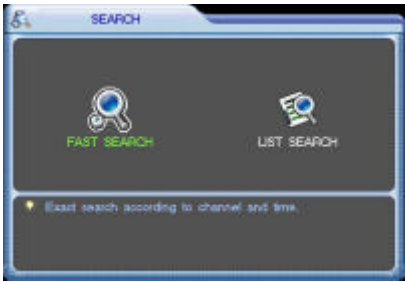
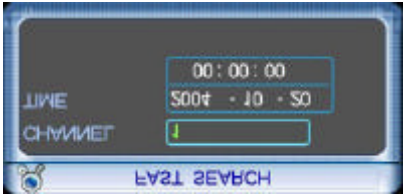
3.5 Network connection operation

- Confirm the correct network connection between DVR and computer
- Set the IP address, subnet mask and gateway of the computer and DVR separately (if there is no router among the network, only the IP address, if there is routers in the network, please set the related gateway and subnet mask)
- Use ping *****.***.***.***** (IP address of DVR) to check the link of the network, replied TTL values less the 64 is normal
- Open IE Browser and input the IP address of the DVR you want to log in
- Network operation see details at Chapter 5 operation through network.

Chapter 4 Front panel and remote controller operation

4.1 Operation menu introduction *The green item is the current selectable one*

4.1.1 Menu shifting and setting

Operation step	Button-pressing order	Instruction	Screen display
Enter main menu and level 1 submenu	1. Confirm Enter	During real-time monitor, press Enter (or click the left key of the mouse) to open the login interface, key in the correct password (default six 6 or six 8) to enter the menu	
	2. Direction (jog shuttle) ▲▼▶◀	Use arrows (or mouse pointer) to select the main menu select	
	3. Confirm Enter	Enter the selected level 1 submenu (or click the left key of the mouse)	
Enter level 2 submenu	4. Direction (joy shuttle) ▲▼▶◀	Use arrows (or mouse pointer) again to select level 2 submenu selection	
	5. Confirm Enter	Press to enter selected level 2 submenu (or click the left key of the mouse)	
Set menu contents	1. Direction (jog shuttle) ▶	Select the revised option, the green item is the current selection, use ▲▼ (or click the left key of the mouse) to revise and ▶ (or mouse pointer) to select the next menu selection	
	2. Direction ▲▼	Use up/down arrows (or click the left key of the mouse to chose) to revise the settings	
	3. Confirm Enter	Press Enter (or click the left key of the of the mouse) to save the revised item	
Exit the current menu	Direction (Joy shuttle) ◀	Return to the last option of the current menu	
	Cancel ESC	Exit to the previous menu (or click the right key of the mouse)	
You can set multiple channels and save all the setting together before exiting the current menu			

4.1.2 Menu Overview

Main menu	Menu level 1	Menu level 2	Remarks
SEARCH  Realize fast search list search and playback function	FAST SEARCH 	CHANNEL 1 TIME 24-07-2005 02:20:00	For accurate search and playback according to the channel and time
	LIST SEARCH 	TYPE ALL CHANNEL 1 TIME 24-07-2005 02:20 00 SEARCH 0 TYPE START TIME END TIME SIZE(KB)	Search records according to the type (All, General, Alarm, MD), channel and time List the results for choosing the wanted file and playback
INFORMATION  Display the HDD information, BPS, Alarm state, System log version and etc..	HDD INFO 	IDE 1 2 3 4 MASTER 0 ----- SLAVE ----- 1 TYPE TOTALSPACE FREESPACE STATUS ALL -- 78162M 64208M 1 Read/Write 78162M 64208M Normal	Displayed the IDE parts' state, the total and free space for all and per HDD, the record starting and ending time With "*" follow the HDD number means the current working HDD Press Fn to check the recording time of the HDD
	BPS 	CHANNEL Kb/s MB/H WAVE 1 1195 525 2 1185 521	Display the current BPS and the estimate for HDD space occupy per hour, and the wave graphics display the BPS visualized
	LOG 	493 LOGTIME EVENT 494 05-07-24 09:26:25 495 05-07-24 09:27:40 I◀ page up ▶I Page down clear	Display the important system events' log
	Version 	CHANNELS 4 ALARM IN 4 ALARM OUT 3 SYSTEM XDVR 6.0 BUILD DATE 2004-11-2 WEB SERVER	Display the information about operation system version, issue date and so on

MPEG-4 Hi-Resolution Digital Video Recorder

SYSTEM SETTING  Set the system parameter, image settings, alarm settings serial port(RS232) and PTZ settings	GENERAL 	SYS TIME 2004-11-2 11:11:00 LANGUAGE ENGLISH DATEFORMAT YMMDD TIME FORMAT 24 HDDFULL OVERWRITE REC-LEN 60min DVR NO. 008 VIDEO PAL SHUTPSW DISABLE DEFAULT SAVE CANCEL	Set system time, recording parameter, the machine No., video format and so on If change the language, system will prompt need reboot to effect
Main menu	Menu level 1	Menu level 2	Remarks
SYSTEM SETTING  Set the system parameter, image settings, alarm settings serial port(RS232) and PTZ settings	Encode 	CHANNEL 1 COMPRESSION MPEG-4 RESOLUTION D1 BITRATE VBR QUALITY 4 FRAMERATE 25 VIDEOLOSS ALARMOUT CLOSE DEFAULT SAVE CANCEL	Coding format and so on
	SCHEDULE 	TYPE SCHEDULE CHANNEL 1 WEEK TIME1 TIME2 SUN 00:00~20:00 00:00~24:00? MON 00:00~20:00 00:00~24:00? TUE 00:00~20:00 00:00~24:00? WEN 00:00~20:00 00:00~24:00? THR 00:00~20:00 00:00~24:00? FRI 00:00~20:00 00:00~24:00? SAT 00:00~20:00 00:00~24:00? ALL 00:00~20:00? 00:00~24:00? DEFAULT SAVE CANCEL	Set schedule for schedule, Motion Detection, Alarm recording. Be able to set 2 different period everyday in a week separately
	RS232 	COM FUNC HYPERTERM BAUDRATE 115200 DATABIT 8 STOPBIT 1 VERIFY NONE DEFAULT SAVE CANCEL	Set the RS232 function and the BaudRate parameter
	NETWORK 	IP ADDRESS 192.168.000.111 SUBNETMASK 255.255.255.000 GATEWAY 192.168.000.001 HTTP 80 TCP 37777	Set network parameter

		PROTOCOL TCP DEFAULT SAVE CANCEL	
	ALARM 	ALARMIN 1 TYPE NO NO. 1 2 3 4 5 6 7 8 REC CHANNEL ☒ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ALARM OUT ☒ ☐ ☐ DELAY 30 PRE-RECORD ☒ TIP ☐	Set alarm output and the relay parameter
Main menu	Menu level 1	Menu level 2	Remarks
SYSTEM SETTING  Set the system parameter, image settings, alarm settings serial port(RS232) and PTZ settings	PAN-TILT 	CHANNEL 1 PROTOCOL NONE ADDRESS 8 BAUDRATE 4800 DATARATE 8 bit STOPBIT 1 bit VERIFY NONE DEFAULT SAVE CANCEL	See sensitivity, region, alarm output and recording channel, etc.
	MONITOR 	MENU OUTPUT MENU COLOR BLACKTRANSPARENCY224 MENU TOUR INTERVAL 5 SEC No. 1 2 3 4 SPLIT 1 ☐ ☐ ☐ ☐ SPLIT 4 ☐ ☐ SPLIT 9 ☐ ☐ DEFAULT SAVE CANCEL	Set parameters of menu output and monitor tour
	MOTION DETECTION 	CHANNEL 1 NO. 1 2 3 4 5 6 7 8 REC CHANNEL ☒ ? ? ? ? ? ? ? ALMOUT ☒ ? ? DELAY 30 PRE-RECORD ☒ TIP ? SENS MIDDLE REGION SET DEFAULT SAVE CANCEL	See sensitivity, region, alarm output and recording channel, etc.

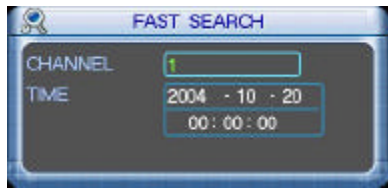
	DEFAULT 	Sure to restore all default setting OK CANCEL	Restore all default setting
ADVANCED 	HDD MANAGE 	IDE 1 2 3 4 MASTER 0 - - - SALVE - - - - HDD No. 1 SET TO Read/Write EXECUTE TYPE READ/WRITE STALUS NORMAL CAPABILITY 238464mb RECORD TIME	Set HDD attributes, clear data in HDD. The attributes can only be changed after restarting the system
Main menu	Menu level 1	Menu level 2	Remarks
ADVANCED 	PASSWORD 	USER NEW * * * * * CONFIRM * * * * * SAVE CANCEL ADMIN OLD * * * * * NEW * * * * * CONFIRM * * * * * MANAGE * * * * * SAVE CANCEL	Use advanced password to log in change password
	ALARM OUTPUT 	1 2 3 ☐ ☐ ☐ SAVE CANCEL	Manually produce output signal
	ALARM INPUT 	1 2 3 4 5 6 7 8 ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ SAVE CANCEL	Enable alarm input
	MANUAL RECORD 	1 2 3 4 5 6 7 8 ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ SAVE CANCEL	Manually start or end recording
	NET USER 	Sure to restore net user ? SAVE CANCEL	Restore net user

4.2 Menu Operation

4.2.1 Recording operation

Button-pressing order	Instruction	Display
1. Record ■	Press to enter screen display	 The screen shows 'MANUAL RECORD' at the top. Below it is a row of numbers 1 through 8, each followed by a small square icon. The icon for '1' is highlighted in blue.
2. Direction ▲▼ or the related number key	Press to shift the recording state on/off. The highlighted means on	
3. Direction ◀▶	Press to shift recording channels	
4. OK	Press OK to save the setting	

4.2.2 Playback operation

Button-pressing order	Instruction	Display
1. Play/Pause	Press the button to enter screen display. After setting time, press play/Pause or Enter begin the playback directly (if the current state is logout, please enter password)	 The screen shows 'FAST SEARCH' at the top. Below it are three input fields: 'CHANNEL' with the value '1', 'TIME' with the value '2004 - 10 - 20', and a time field with the value '00:00:00'.
2. Playback status bar	The bar displays channel No. , date, time, playback speed, playback progress. Can control playback speed, sound volume, etc. You can hide the bar by pressing ↑ on the front panel or hide icon on the top right corner of the playback status bar	 A horizontal status bar at the bottom of the screen. It contains icons for play, pause, stop, and other controls, along with a progress bar and a timestamp '2004-11-25 01:10:21'.

MPEG-4 Hi-Resolution Digital Video Recorder

Shift to other channel during playback	During playback, press number key (1 to 4), then the system will start to play records on related channel at the same time	
Record information display	During playback, press Fn to display or hide the playback state bar	

4.2.3 Playback fast play and slow play

Button-pressing order	Instruction	Remark
1. Fast play : press the key ►►	During playback press this key to shift between multiple fast play speeds. Fast play key can be the reverse key of slow play	Fast play speed is relevant to the version
2. Slow play : press the key ◀◀	During playback press this key to shift between multiple slow play speeds. Slow play key can be the reverse key of Fast	Slow play speed is relevant to the version
3. Play / Pause	During slow play press this key to shift between play and pause	
4. Play next section, play last section	During playback state it takes effect. Press ◀◀ ►► to view the next or last record of same channel	

4.2.4 Jog shuttle special function

Jog shuttle special function	Instruction	Remark
1. Fast play (outer lane of the jog shuttle clockwise)	During playback, turn the outer lane clockwise once to change fast play speed	CH 1 Play 15fps
2. Slow play (outer lane of the jog shuttle anti-clockwise)	During playback, turn the outer lane anti-clockwise once to change slow play speed	
3. Frame by frame	During playback, press play/pause, then turn	

playback manually	inner lane of the jog shuttle clockwise slowly to start frame by frame playback turn inner lane anti-clockwise start I frame playback	
-------------------	---	--

4.2.5 Playback and frame by frame playback

Button pressing order	Instruction	Remark
Playback (◀ on the playback control bar)	During playback, click ▶ to play records backwards. Click ▶ again to pause	During playing backwards or frame by frame playback, click ▶ to switch to normal play

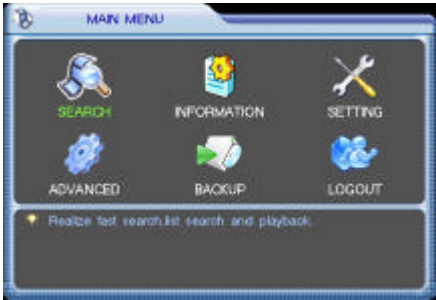
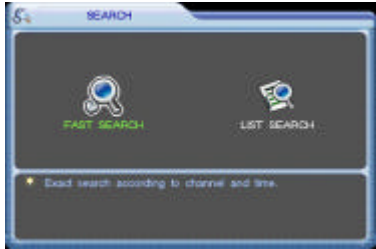
4.2.6 Control of Pan-Tilt and Image Color

***The current image must be shifted to the input image of the controlled camera ***

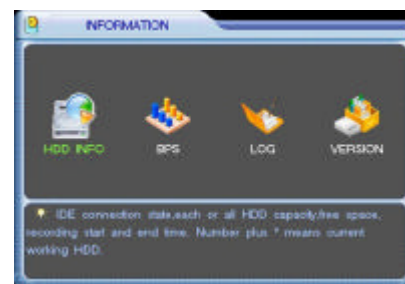
Button pressing order	Instruction	Press Fn to display
1. Refer to menu operation at Pan/Tilt/Zoom	In Pan/Tilt/Zoom, select the related channel and protocol. Set the BaudRate and address of the PTZ camera press enter to save	
2. Assistant function Fn1	When in single window monitoring mode, press Fn1 to enter the screen display. The assistant function menu includes Pan/Tilt/Zoom and image color press Fn continuously to shift between PT control (Direction), Lens control (ZOOM, FOCUS, IRIS), Light control (OFF ON), Auto PATROL (OFF ON) and preset IMAGE color : Include Hue, Brightness, Contrast, saturation and gain	
3. Direction ▲▼◀▶	Set the related Pan/Tilt, lens and light, auto patrol and preset	
	Set Hue, Brightness, contrast, saturation and Gain	
4. Previous section, Next section	The function is the same with Fn	

5. Number Keys	When in PTZ control , Number keys are used to set the step size. 1 means 8 step size 2 means 1/8 step size 3 means 2/8 step size 9 means the longest step size	
* You can set multi-channel parameters before exiting the same level menu, then save them together		

4.3 Main Menu Operation

Instruction	Remark
1. Main menu	
2. Search – The menu for record search is as the right picture : Search the records according to type, channel and time Note: choose the wanted file in the list and press Enter to play the record	
3. Fast Search – Set the channel No#, date and time you wanted to search, and then select OK the playback begins. Use ◀▶ key to select the channel and time, the number key or ▲▼ to change the number	
4. List Search – User can search the records according to type (all, alarm, Motion detection) Channel and time. After right setting select SEARCH, the screen shows the 10 recording files following the searching time use ◀、▶ to page down and page up. Play selected record to begin playback	

5. **Information** – Menu of information see the right picture : includes 4 section HDD INFO, BPS, LOG and Version



6. **HDD INFO** – Display the information about state of IDE ports, HDD state, HDD number, HDD capacity, free space, the start and end recording time and so on.

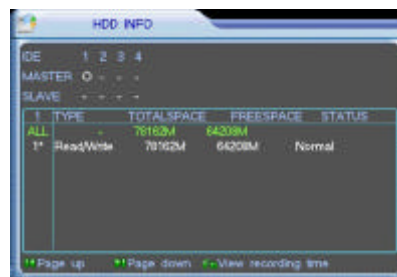
The type item has only two options : Read only and Read/Write following the HDD number means the HDD being use

“x” means error on the corresponding HDD

“-“ Means no HDD on this port. If the user want to change the error HDD, he must power off DVR first.

After DVR start up, if there is HDD collision, the right picture will show up . At this time, the user should check whether there is any collision between system time and recording time (for example : the system time is ahead of the recording time). If it is true, change the system time to ensure the correct recording date

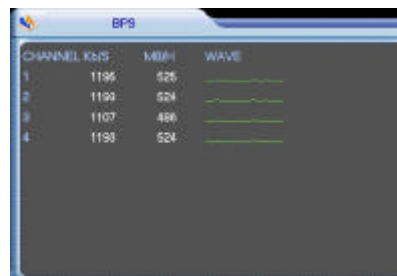
Note : Press Fn or left click view recording time to switch to HDD type and capacity.



7. **Version** – Display Hardware version, the issuing date and version of the operation system, etc.. The information is read only



8. **BPS** – Display the bit rate per second (kb/s) and estimated HDD space occupied per hour HDD (MB/h) for each channel



9. **LOG** – Display log information to convenience the user to check the operations on the system

10. **Setting** – Menu of the system setting is as the right picture:
Including General, Encode, Schedule, RS232, Network, Alarm, MD, Pan/Tilt, Monitor, Default and so on .

Note : only administer is allowed to enter the setting menu



11. **General** –

SYSTIME - are used to modify the current system date and time;
after the modification please save the change by clicking save on the top right

DATE FORMAT - for choosing the date format

TIME FORMAT - include 24 hours format and 12 hours format

LANGUAGE - including simple Chinese, Traditional Chinese, English and so on for chooses

HDDFULL - user can choose overwrite or stop mode if selecting overwrite, system will covers the previous recording files

RECLEN - can set the length of each recording file (15mins, 30mins, 60mins)

DVR NO. - Setting address here for controlling several DVRs using on remoter

VIDEO FORMAT - include NTSC format and PAL format

SHUTPSW – If choosing able, system will need input password to turn off the DVR in order to prevent unauthorized or unintentional operation

Note : system time cannot be changed freely; otherwise it would cause the malfunction of recording search.



12. **Encode** –

In channel - select the related channel.

In compression - choose MPEG-4

In Resolution – there are D1, HalfD1, DCIF and CIF. (For HalfD1 machine, only halfD1, DCIF and CIF are available)

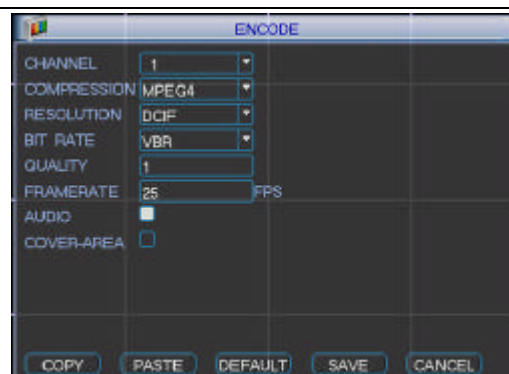
BITRATE – includes VBR and CBR FRAMERATE 1fps ~25fps is Selectable.

In Quality – there are 1~6 levels of image quality

In Audio – if highlighted, that means audio and video synchronization otherwise only video input

Video loss – includes alarm output and screen tip

IN Alarm out – off means no alarm output when there is a video



Loss

TIP – Highlight means display the message for alarm output in the screen

Monitor lock – Highlight means you can not see live monitoring on the monitor but DVR is still recording over internet, only the administrator can see the picture

13. **Schedule** – Select type (General, Motion detection and alarm recording) and the corresponding channel in channel then set recording schedule; user can set 2 period every day in a week separately

■ means the recording enabled

Time1 and Time2 express the timed recording period of the current channel. Time2 should be after the ending time of time1 the setting range is 00:00 ~ 24:00

Note : If you need record all day long set Time1 as 00:00~24:00 on while set Time2 as off



14. **RS232** – Add and choose the corresponding protocol to realize functions the available protocols are as below :

Debug – used when upgrading and debugging the program through mini terminal

DHKB - used when controlling DVR by keyboard ([3045079](#))

DATEBIT – From 1 to 8

STOPBIT – has three options : 1,1.5,2 bit

VERIFY – including odd and even parity



15. **Network** – IP Address is set by using ▲▼ or input the exact numbers to change the IP address (IP Address can only be set in this term) Then set the relate SUBNETMASK and GATEWAY

HTTP – default 80

TCP – default 37777 and can be change if need

PROTOCOL – choose the corresponding network transmission protocols, such as TCP/IP and Multicast (Multicast is extendable)

16. **Alarm**

Alarm in – select the related channel

Type – has No (normal open)/NC (normal close) voltage output modes

REC Channel – select and display the recording channel when there is alarm input (can choose more than on channel). IF the camera number is selected, recording would be started for that camera automatically when there is alarm input

Alarm out – choose alarm output port when there is an alarm input . The first and second ports will trigger corresponding relay.



MPEG-4 Hi-Resolution Digital Video Recorder

The third port output controllable voltage.

Delay – means to extend the recording time after receiving signal (10,20,30,... 90Sec). when the outside alarm is disarmed, the system will extend the recording time automatically before closing alarm and relay output

PRE RECORD – able to pre-record (about 5sec) before the alarm input (the pre-recording time is relevant with bit rate).

TIP – Highlight means display the message for alarm output in the screen

17. Motion Detection

Channel – select the relevant channel need to set motion detection

REC CHANNEL – select and display the recording channel when alarm input (Be able to double choose). Highlight means the certain channels will start record automatically when in motion detection

Alarm out – choose the channel for triggering corresponding alarm equipment when detecting the motion

DELAY – means to lengthen the recording time after receiving alarm signal (10,20,..90sec). when the motion detection is canceled, the system will lengthen the recording time automatically

PRE RECORD – Able to pre-record (about 5 sec) before the motion is detected

TIP – Highlight means display the message for alarm output in the screen

SENS – has three levels : Low, Mid, High

REGION – can be accessed by pressing ENTER the setting area can be divided in 192 sections. Green section means the current cursor position, and black section is the motion detection area the blue area is no motion detection area press FN to locate the current section, then move the cursor to cover the MD needed area, press FN again to choose the MD area press ▲▼ to get the setting and press enter to confirm after the default setting is selected, system will restore the original setting



18. Pan-Tilt control

Channel – select the relevant channel

PROTOCOL – choose the protocol of the brand name of corresponding pan-tilt decoder

ADDRESS – is the address of the corresponding PTZ decoder

BAUDRATE – choose the corresponding BAUDRATE OF the decoder
save all the settings and come back to single windows monitor,
then click FN key to set the PTZ control : direction, focus, IRIS,
zoom and pre-set position.

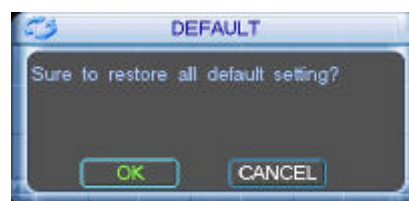
**19. Monitor**

Menu output – user can chose the favorite background color and the transparency as well. The transparency can be chosen from 128 to 255.

TIME TITLE – If highlighted the system time will be attended channel (Highlight means attend the tour) for the tour.

**20. Default**

The system will restore the original setting

**21. Advance**

Menu of the advanced setting is as the right picture : Need to input advanced password before operation including : HDD Manage, password, alarm output, Alarm input, manual record, net user and so on.

**22. HDD Manage**

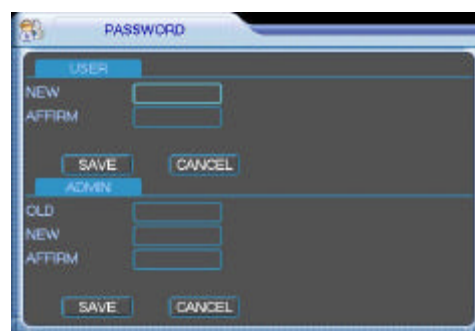
If 8 HDDs are installed in the DVR, you can choose from 1 to 8 in HDD No. There are 4 IDE ports. The first IDE port is near the power socket, the following is the second, third and fourth after choosing the HDD number the following options display the information about this HDD. You can also change the attributes of the HDD such as read only, read/write and format. Then click execute. The new attribute will take effect after rebooting the system

23. Password

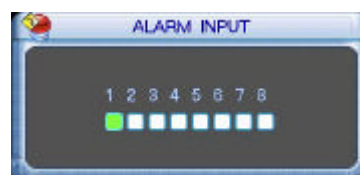
The user's and the administrator's passwords can be changed here. Use number key to input and confirm the new password, press "save" to save.

When you set user's password, you only need to input the new password twice. But if you want to change the administrator's password, you have to input the old one first. When the password in new and confirm are the same, the screen will display "password saved", if not the same, it will display "password invalid". The password consists of from 1 to 6 numbers.

Note : only administrator can change the password

**24. Alarm Input**

Set the alarm input port and highlight means enabled. Click enter to save, ESC to cancel and escape only when the alarm input is enabled, the DVR can receive the corresponding alarm input.

**25. Alarm Output**

Set the alarm output port and highlight means enabled. Click enter to save, ESC to cancel and escape manually open or close alarm output port.

**26. Manual Record**

Triggered the recording of the wanted channel manually and highlight means enabled. Click Enter to save, ESC to cancel and escape.

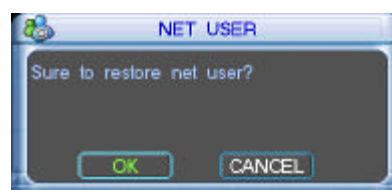
**27. Net User**

Restore the original net user.

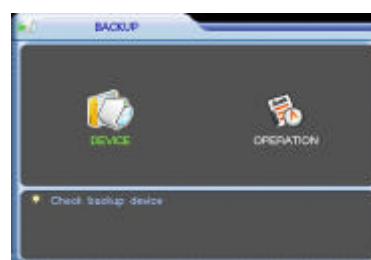
Original user : admin

Original password : admin

Click "OK" to confirm the operation.

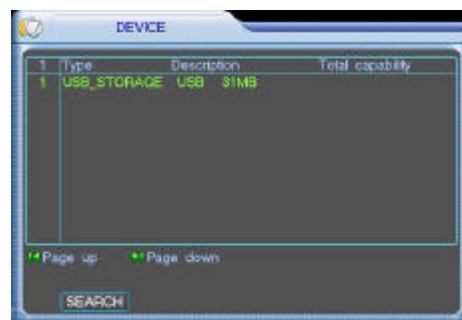
**28. Backup**

Menu of backup is as the right picture including Device and Operation.



29. Device

Backup devices include CD-RW and USB. The screen will display the detected devices and their total size

**30. Operation**

Select device (CD-RW or USB). If you want to clear records on this device, click CLEAR.

Backup Operation – Select the device, channel, starting time and ending time, then click search. Matched records will be displayed.

There is a check mark in front of the recording type for every record. If you don't want to back up record, you can use Fn to cancel the check mark. The system only backup records with check marks. The screen also displays needed space and free space on the bottom after clicking backup. Progress bar will pop up.

Note: During backup, you can press ESC on the front panel to exit the screen, but the backup is still going on. If the user does not connect the backup device correctly, the system will display.

No backup disk – If the user doesn't choose records or some errors happen during backup, the system will have corresponding display.



Delete backup - During backup, the user can cancel backup manually. After click "backup", the backup button becomes cancel button clicking cancel will stop backup. If the device is USB storage (flash or mobile HD), the records before clicking the cancel button will be stored on the device. For example, during a 10 minutes long record backup, if it is stopped at the fifth minute, there is 5 minutes long record on the device. For USB,CD-RW, if the user cancels the backup, the record on the CD is invalid the format of the backup record's name is CH + Channel No. + Date + Time

Note: some tips when using CD-RW to backup records-

- choose CBR mode
- Disconnect net to avoid error
- Recommend to use SONY (IDE brand is CRX230A) and BENQ (USB brand is 5232WI). These two brands have already been tested

31. SHUTDOWN

Logout menu user - exit menu, the user has to input the password for entering menu.

Restart application – exit application and restart application	
Shutdown – exit and power off DVR	
Restart system - exit and restart system	

Chapter 5 Operation Over Network

There are two ways to access the DVR over the network : Using Microsoft Internet Explorer (IE) or Client software.

Using IE, no special software needs to be installed on the PC. A web control unit will be downloaded to the computer automatically the very first time a connection to DVR is initiated.

The Client software needs to be installed properly to use the second option the remote client software's included on the utility CD in the accessory box.

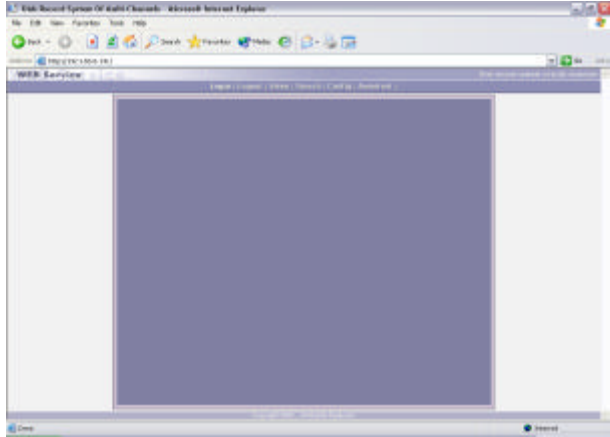
5.1 Setting on the client end

This software does not need to pre-install any software. Please check the connection of the network, for example, ping the IP address of the DVR. If cannot ping through, please check the connection carefully.

5.2 Login and logout

Please input the IP address of the DVR in the address column of the browser. Take the DVR's IP address : 192.168.000.111 .

Note: The first time you visit this DVR, the system will pop up a dialogue box to ask whether you accept ActiveX or not, and please choose "Yes" , then the system will install the software automatically.

Instruction	Remark
1. On the remote monitor display, there is a monitor video window, with selection choices : Login, Logout, Video, Search, Config (system setting), Assistant (assistant setting) and so on	
2. Login (a) Please click “Login” and the following dialogue box will Pop up. (b) Input username and password. There are three type of users – Administrator, User, Guest. For the detailed information please refer to “User manage” in Assistant setting. The default username is admin and password is “admin” for security purposes, please change the administrator password (c) If after the input of the username and password, the following box pups up. The system is indicating that another user has used this name and logged in please use other name to Login. (d) If after the input of the username and password, the following box pop up. The system is indicating that the username or the password is incorrect please try again.	(a) (c) (d)
3. Log out If the logged-in user need to log out, Please click log out button after the popup of the dialogue box, please choose “Yes”.	

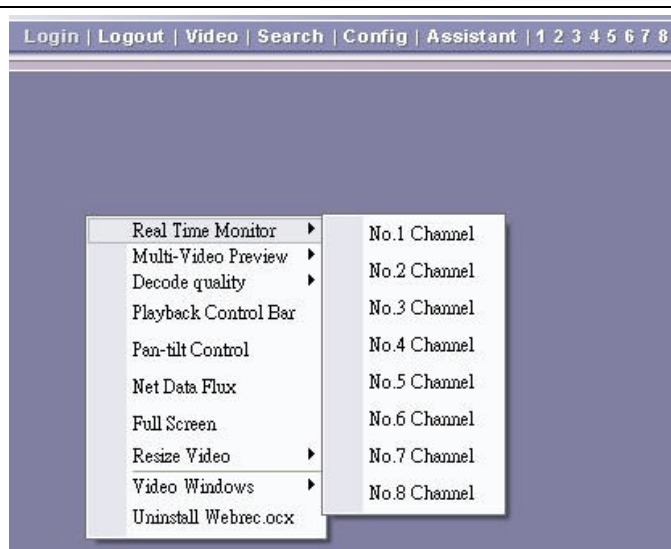
5.3 Operation of the right key menu

Instruction	Remark
-------------	--------

1. After you login as Administrator, the buttons like login, logout, search, Config and assistant are activated click the right key.

If the DVR is 8 channel, the real-time monitor will show 8 channel options; if 4 channel, it will show 4 channel options.

The right key menu includes : Real-time monitor, Multi-Video preview, Decode quality, Playback control bar, Pan-Tilt control, Net data flux, Full screen, Resize video, Video windows and uninstall Webrec.ocx

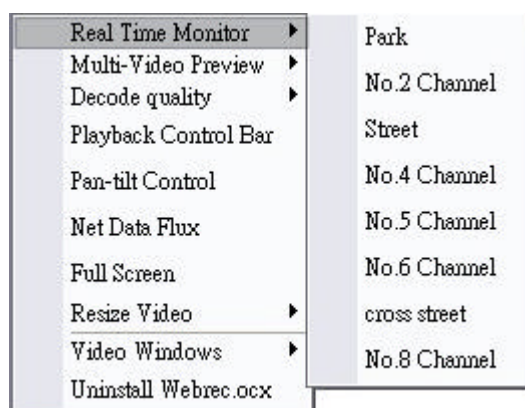


2. Real time monitor

Among the display channels, you may select the channel you want to see. Channel name can be changed under Assistant ->Change Name.

When you review picture, click the right key and you will find an menu option "Prearrange set" has been added.

Note: If you didn't set a protocol of the Pan-Tilt on the DVR configuration menu, the prearrange set and Pan-Tilt control options are gray and can't be set a protocol and the options were still gray, maybe you have no administrator right or was deprived of the right. Please apply for the control right first.



3. Decode Quality

Four levels decode quality for choose.



4. Playback control bar

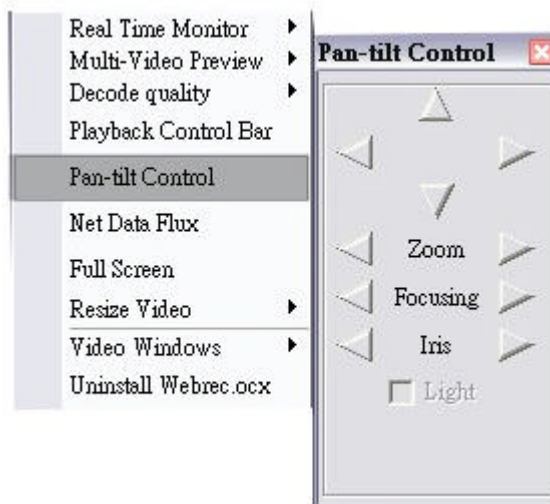
Please refer to Records playback.



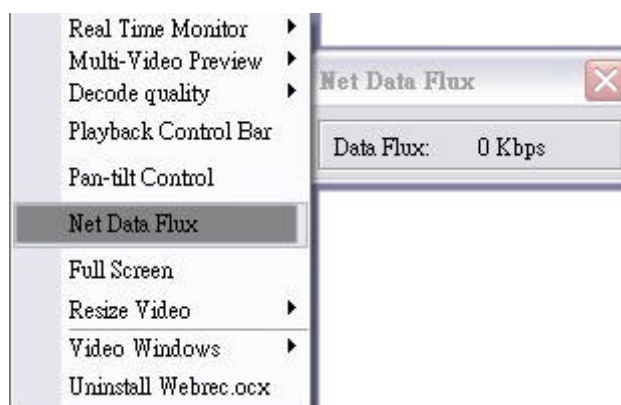
5. Pan-Tilt control

Control the direction moving of the Pan-Tilt and zoom.
Press the related buttons to control.

Note: Before the PTZ will operate, you must set right the protocol of the pan-tilt-zoom on the DVR configuration menu.

**6. Net data flux**

Display the statistics of the network transmission data flux. When there is no network data transmission the statistics shows zero.

**7. Full screen**

There are two way to realize full screen monitor : one is to double click the window directly, the other is to select Full screen among the right key menu during multi-Window state, choose one of the windows and make it full screen is the same way.

8. Resize video

In single window status, the user can resize video only when live monitor is chosen. In multi-window status, video can be resized even without live monitor.

9. Video windows

There are one window, two windows, four windows, new video window, close video window and arrange in full screen.

(a) New video window – when the number of video windows is less than 4, you can add new video window manually.

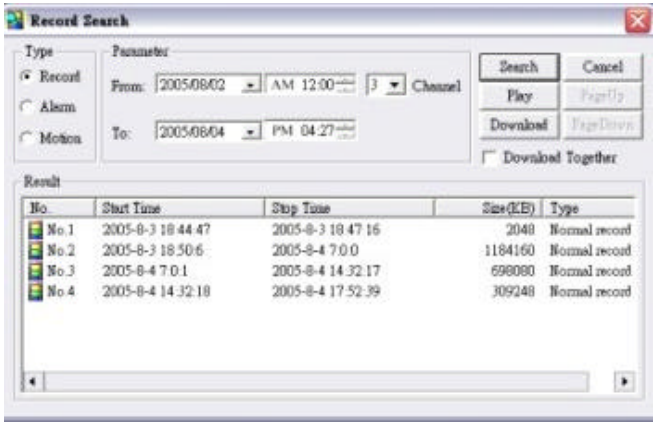
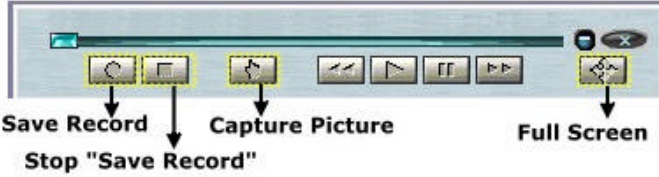
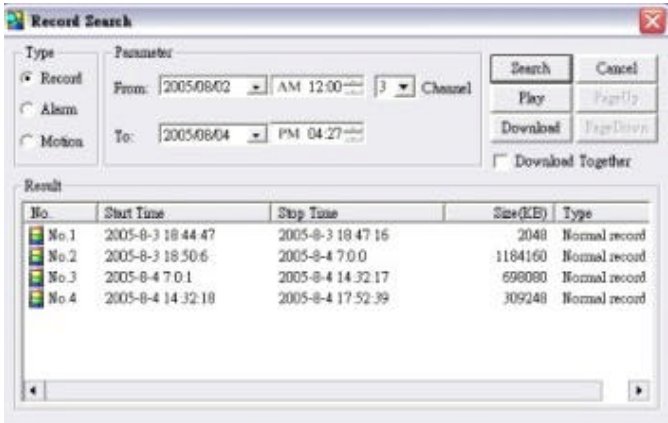
(b) Close video window – close the video window.

(c) Arrange in full screen – If two or more window are

displayed, you can use this option to display multi-window in full screen.

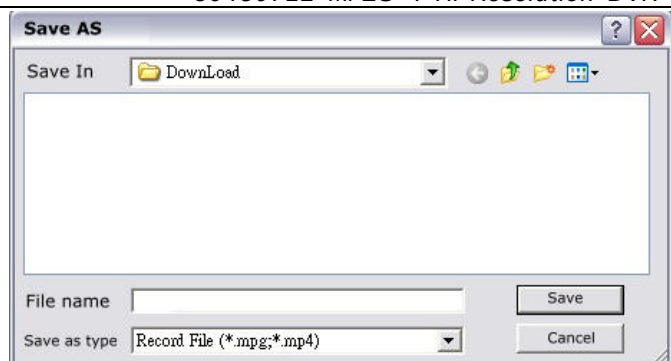
(d) Uninstall Webrec.ocx – Uninstall the Active X Webrec.ocx before you upgrade the new web Active X.

5.4 Operation of the Records Search

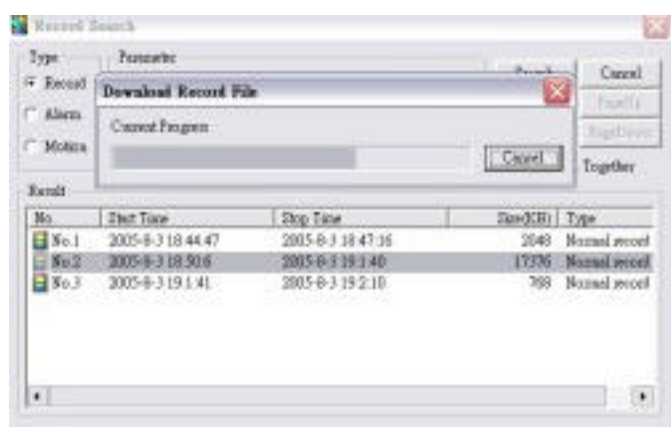
Instruction	Remark
1. Search - Click on search, then fill in the required info on the pop up dialogue box of records search. (a) Input recording time, channel number and searching type (Record, Alarm or Motion Detection), and the results will show in the dialogue box. It only shows the 15 records after the searching time and click “page up” and “page down” to find the right records. Double click the records download, and the record will be automatically save at C:/Download (b) During the playback, you can operate the buttons in the playback bar like save record, stop “save record”, full screen during the playback on the video screen the video display the channel number, time and data flux of the record.	 (a)  (b)
2. Download (a) Select the wanted records (It supports the downloading of several records simultaneously) and click “Download” save. (b) The default format of the downloaded records' name is as : File name + Channel No + Date + Time, extension name is *.mp4. If you want to download several records, together, you should check in the check box before download together. The default name of the records is the same with the name of the first record (according to recording time). During the	 (a)

playback, it will play all the records.

(c) Saved under Download file clip. Input the file name and choose save. The screen shows the processing of the downloading until the completion.



(b)



(c)

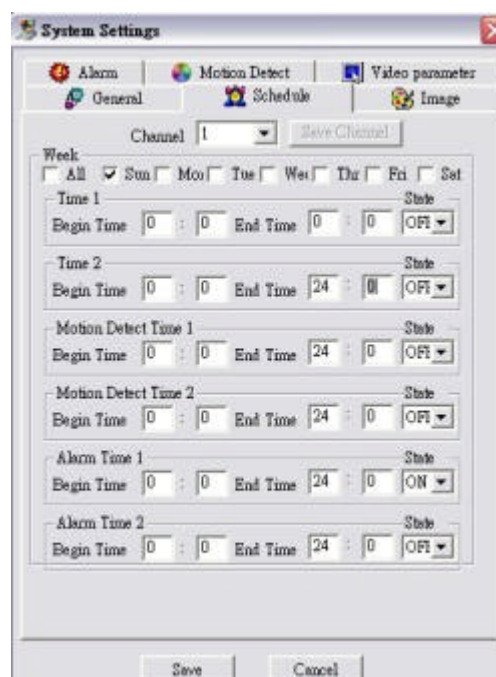
5.5 Operation of the Config (system setting)

Instruction	Remark
1. Config – Click Config button, and pop up the dialogue box there are “General”, “Schedule”, “Image”, “Alarm”, “Motion detection” , “Video Parameter” tabs of six setting menus Note : the gray part of the menus that cannot be changed can only be modified directly at the DVR	

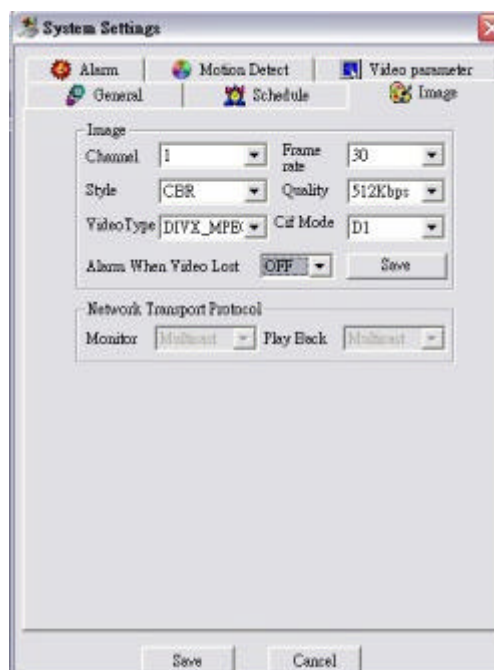
2. **General** – Include the record length setting in control column select the channel number and it pan-tilt decoder's protocol, as well as the related address son as to realize the control of the lens and pan-tilt



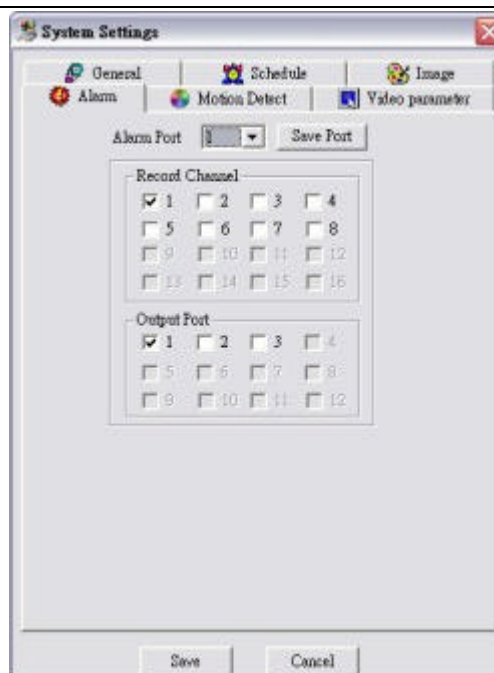
3. **Schedule** – Able to select the different channel and date to perform the recording at the different period of time. Schedule recording includes general recording motion detection recording and alarm recording. There are two time periods for setting in each recording type. The set time in Time 1 and Time 2 are independent with the set time in motion detection and alarm only when status is "On", the set time period takes effect. If the states of the two time periods are both off the system will not record in this recording type.



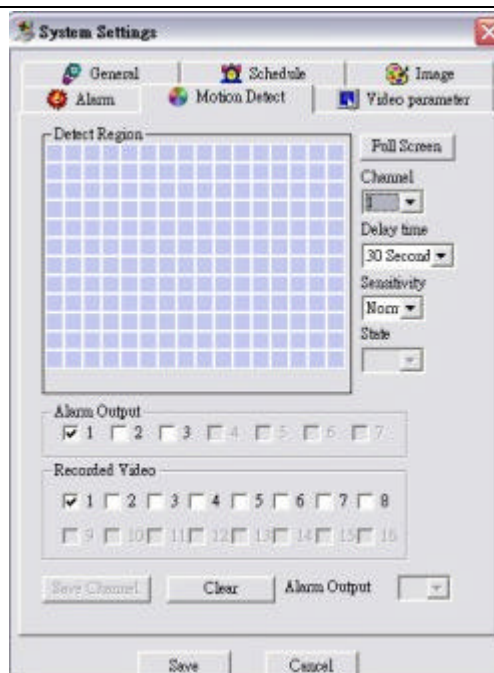
4. **Image** – This menu can select the coding style, image quality and protocols for each channel. After finishing one channel setting, click “SAVE” the setting of this channel. You can continue to set the image attributes of other channel finally, click “SAVE” on the bottom of the dialogue box to save all setting. Frame rate has 1fps, 2fps, 4fps, 7fps, 15fps, 30fps. Coding style has VBR (variable bit rate), CBR(constant bit rate), MBR and NR (MBR and NR are extendable styles). When in VBR style, there are 1,2,3,4,5,&6 levels of image quality. When in CBR style, selectable data flux are 128kbps, 256kbps, 384kbps, 512kbps, 768kbps, 1024kbps. The different data flux demands on the related bandwidth and the transmission image quality is also different. Among them Level 6 demands on the widest band and has the best image quality. Alarm when video lost “ off means no alarm “On” means alarm when video lost.



5. **Alarm** – When there are alarm input signals, user can select the recording channel and the output port due the actual need.



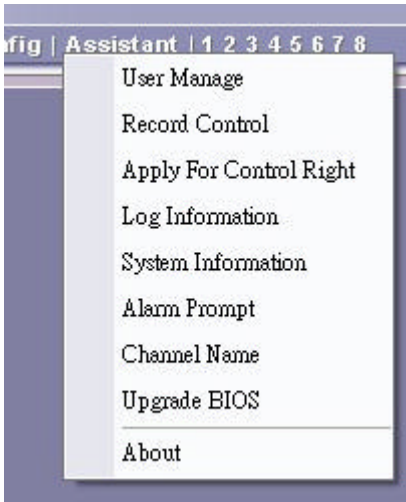
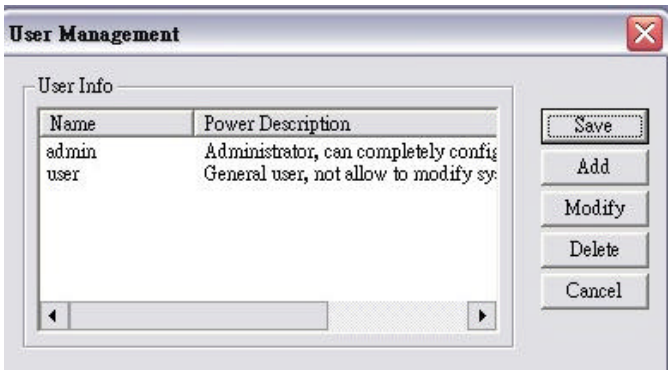
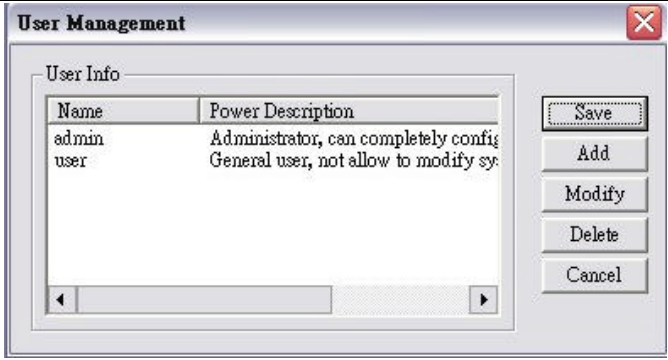
6. Motion Detection – When the user set the time period outside the time setting in Timing motion detection will take effect. The purple area is the selectable motion detection area user can move the cursor to choose the area and can also set the sensitivity of the area due to the need click “Full screen” or press right key on the area to display the motion detection area at full screen. After setting the area user can save channel or clear the area. Alarm output: it decides whether you want replay output. If you want to set this channel fully as motion detection recording you have to turn off the timing recording of this channel.



7. Video Parameter – User can adjust the video Hue, Contrast, Brightness, Saturation and so on click Reset to reset default value.



5.6 Operation of the Assistant

Instruction	Remark
1. Assistant – Click on Assistant button, as following, there are “ User manage”, “Record control”, “Apply for control right”, “Log information”, “System information”, “Alarm prompt”, “Channel name”, “Upgrade BIOS” and “About”.	
2. User manage – display the user information of the DVR. The right button can let user save, add, modify, delete and cancel the information. (a) Three levels user : Administrator – Fully set the system and modify the user information; User – can not set system parameter and modify other user's information, Guest – can not set system parameter and records search, can only modify personal information. (b) Add – Click Add to show the following dialogue box, user can add user information in this dialogue box, assign user power level. There is only one administrator allowed. (c) Modify: Select this button to show the following. User modify the filled-in information.	 (a)  (b)  (c)

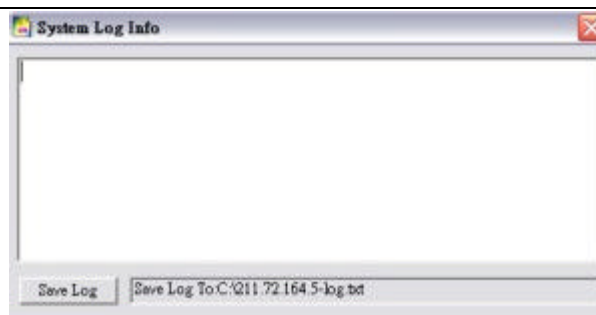
3. **Record control** – Control the recording of each channel manually.



4. **Apply for control power** – Web client software can supply the login of multiple users. If you want to have the control power, you can click this option and confirm to have the control. If the user want to have the control power, he has to apply and gain the authorization of the user with control power. If the logged-in users are all normal user, the first logged-in user gains the control power automatically. If administrator logs in later, it can gain the control power by force. If only one user logs in or the logged-in user is the user with control power, the box is gray.



5. **Log information** – The operations on the system are all recorded in log information



6. System information – Check the basic information of the system when sound is not needed, you can turn off the audio. Due to the bandwidth consideration, the user can select the different video transport mode, and after choose non real-time transmission, the mode is Extract frame. Video type PAL or NTSC has to be selected right. If auto recycle monitoring is on, system will shift among all the channels automatically and the time interval can be set

Net data flux : during real-time monitor it shows the statistics of the network data flux.

System Info

Disk Info
 Count: 1
 Total Capacity: 78164 M

File Info
 Begin Time: 2005-08-07 05:22:10
 End Time: 2005-08-08 10:27:40

Audio
☐ Open ☒ Close

Video Type
☐ PAL ☒ NTSC

Video Transport Mode
☒ Real Time ☐ Extract IFrame

Preview image
 style Quality

Auto Recycle Monitoring
☐ Open ☒ Close
 Interval: 5 Second

Net Data Flux
 Data Flux: 0 Kbps

OK

7. Alarm Prompt – Different sound warning form the certain Alarm input can be chosen according the user's needs. The audio file named alarm sound wav in under the directory system32

WARNING

2005-08-08 09:01:29
 Video loss! Channel No.: 1 2 7 8

Alarm Prompt
☐ Extern alarm
☒ Video loss
☒ Motion Detect
☒ Show Video

Select audio

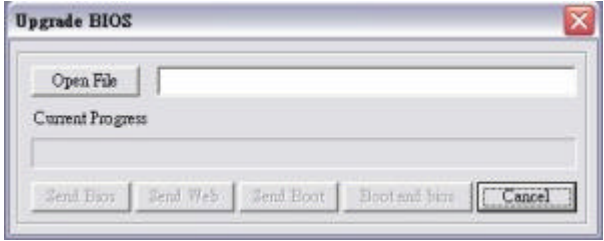
OK

8. Channel name – able to name each channel and the letters are no more than 12. The revised channel names will be displayed on the screen. The default setting of the channel name is channel 1 to Channel 4.

Channel Name

Channel1	Park	Channel5	
Channel2		Channel6	
Channel3	Street	Channel7	cross street
Channel4		Channel8	

Modify Save Cancel

9. Upgrade BIOS – able to upgrade the BIOS program remotely. Open the related BIOS or Web file, and click on send BIOS. After the upgrading. it will show the clue about the upgrading.	
10. About – Version information	

Chapter 6 Serial port operation

6.1 System setting of the Mini Terminal

The system's operation can realize use Min terminal software through RS232 port. The operation is as below:
First, copy "Mini Terminal" and "system upgrade program" to the computer connect the computer with the DVR through RS232 port Run "Mini Terminal" program and create the connection between the computer and the DVR

The setting information for the connection is

Baudrate ----- 115200bps

Data bit ----- 8 digits

Stop bit ----- 1 digit

Check ----- no need

Control on data flow ----- no

You can log in by username admin (default user with administrator) for the serial port login

Login steps:

Press any key to enter the login interface, which showing as following:

_Username : admin

Input the name ; press the "enter" key. Then, input the password as following:

_Password : admin

If the username and password are correct, system enter serial port management menu interface. The detailed functions are the same as the menu setting

6.2 Serial port upgrading operation

After the setting of above operation, please follow the below operation:

Press any key to enter login interface as following :

_ Username : admin

Enter username and press Enter system hint to enter password as following :

_Password : admin

system gets into the DEBUG -> state, and input BIOS and press Enter

Click communication in the menu – send file, and open upgrading program file. System begins to upgrade automatically and after the upgrading system will restart automatically.

Chapter 7 Frequent Questions and Answers

1. If the operation system is Windows98, which aspects should be taken care of ?

For Windows98, a picture tool Directx9.0 should be installed in advance, because windows 2000 or windows XP already includes this tool.

2. HDD can not be detected

- ☐ First check whether the HDD is broken
- ☐ Check whether jumper line, IDE data ribbon and power cord are well connected
- ☐ If only one HDD is connected to one IDE, this HDD must be setup as master

3. What is mean for the sound of buzzer when normally start the machine

When the machine is started successfully, it would burst out a short ring

When the HDD could not be identified, it would burst out a long ring

When communicate with the controller panel is abnormal, it would burst out a voice of one long ring and two short serially.

4. Uncontrollable the recording time?

The recording time unit is one day. Besides schedule recording, there are other recording modes such as motion detection recording, manual recording, alarm recording Please confirm each setting is correct. Each time period should be set within one day.

5. The indicator light is flashing while recording?

Check the external video input signal first, When substandard signal is inputted, the indicator light will flash Otherwise the reading speed of HD is too slow will cause the problem, in this case, the current HDD should be changed.

6. About heat dispersion

We use low power dissipation chips for DVR internal circuit. Smart management is adopted to manage HDD. If we haven't manipulated DVR for 7 minutes, DVR will make non-working HDD into standby mode. This reduces heat volumes of DVR and also improve useful time of HDD

7. No video signal on one channel on the monitor

Check whether the video line is well connected or put the camera's video line into the monitor directly to see if there is any video signal If not, that indicates that there are some problem for the camera or video line. If the picture shows up on the monitor, please contact with the supplier.

8. Remote control doesn't work

Most of the case fall into two reasons : battery problem or address mismatch.

Battery problem – Make sure that two good AAA type batteries are installed

Address mismatch – one remote control unit can be used to control multiple DVRs. Each DVR is programmed to accept control signal from one of 256 channels. This setting can be found under MENU -> System setting -> General -> Remote ADD to change the output channel of the remote control unit to match one particular DVR (represented by Channel # 1 to 256), aiming at the DVR, press the "ADD" button which is located at the right upper corner of the remote control. There should be a message displaying on the local monitor "ADDRESS ---". Use the remote control's number keys to input the DVR's channel number and press the Enter button.

If you cannot get the "ADDRESS___" message and the connection of the local monitor is correct, please call your vendor for support.

9. Can't control PTZ or speed dome

- ☐ Check the connection between the DVR and PTZ or speed dome
- ☐ Check the setting the setting can be found under MENU -> SYSTEM SETTING -> PTZ control
- ☐ The address and protocol should be matched with ones in PTZ or speed dome

10. Fail to connect to network

- ☐ If the "fail to connect to one IP address" dialog box pops up, the system is indicating that there are some problem for the connection between DVR and the computer. Check IP address and other network setting. Use "Ping" command to check connection problem.
- ☐ If the "This user has logged in" dialog box pops up, the system is indicating that some other user has used this name and is logged in. Please use another name to login.

11. After I logged in the DVR, why the image quality is not good and sometimes has drag mark at the beginning?

If the image can recover within 5 minutes, it is normal.

12. What kind of external equipment could be connected the DVR?

It can work together with special keyboard, various matrix units, various control decoder, alarm input and output devices and access control.

Appendix

A. Operation of DVR with speed dome

Speed dome that works with the DVR

The following speed dome camera can be set up with DVR :

Model 3021031 with 17x optical zoom

Model 3021032 with 22x optical zoom

Model 3021033 with 25x optical zoom

Configure the DVR with speed dome step by step :

Connect the speed dome with DVR via RS-485 by using twisted pair cable.

Refer to user's manual of speed dome and DVR for detailed connection respectively.

(Recommended cable : 2547 VW-ISC UL 24AWGx2C)

User can configure the DVR through the local OSD menu (On Screen Display), or configure it through the Client Software as shown below.

Through Client Software (refer to figure A2-1 below)

1. Click DVR menu, select General folder
2. On the control zone :
 - *Select the channel with video input of speed dome
 - *Select Protocol to be 302103x (represent all above models of Talitor's speed dome)
 - *Input Address from 1 to 64, corresponding to the ID setting of the speed dome (since the speed dome can be serially connected up to maximum 64 units)
 - *Baud rate has to be 9600
3. Click Save to finally save all above settings

The speed dome should now be controlled by the DVR, you can try it by using the Pan-tilt control panel at the right-hand side of the Client Software GUI.

Through local OSD menu

1. Press Enter key on DVR front panel, and input password to enter DVR menu
2. Press SYSTEM SETTING ? PANTILT CONTROL
 - *Select the channel with video input of speed dome
 - *Select Protocol to be 302103x (represent all above models of Talitor's speed dome)
 - *Select Baud rate to be 9600
 - *Input Address from 1 to 64, corresponding to the ID setting of the speed dome (since the speed dome can be serially connected up to maximum 64 units)

Functionality of the P/T/Z control

Operating through the Client Software

User can control the Zoom, Focusing, Aperture, and Pant/Tilt control by clicking the arrow button on the Pan-tilt control panel as above figure shown.

There is only one speed level of Panning and Tilting, ie. 50 %sec., when doing Pan/Tilt control through Client Software.

Operating through the local OSD menu (by DVR front panel or DVR keyboard)

Select the channel with video input of speed dome camera.

- * Press Fn1 on front panel or FN on keyboard to activate the OSD P/T/Z panel.
 - * Keep pressing Fn1 or FN every once for changing functionality.
 - * Use arrow keys or Joy stick to control P/T/Z, zoom, focus, and IRIS.
- * When doing Pan/Tilt direction control through OSD menu, 8 speed level as below shown are available. Input the speed level as 1,2,... 8 through the channel number button on Front panel or number keys on keyboard.

Speed Level	Panning Speed	Tilting Speed
1	0.2 %sec	0.2 %sec
2	2 %sec	2 %sec
3	8 %sec	8 %sec
4	20 %sec	20 %sec
5	50 %sec	50 %sec
6	90 %sec	90 %sec
7	130 %sec	130 %sec
8	180 %sec	180 %sec

Please note that not the whole original designed functionalities of the speed dome are controllable through DVR.